STATE OF SOUTH CAROLINA

BEFORE THE PUBLIC SERVICE COMMISSION

DOCKET NO. 2018-1-E

In re: Annual Review of Base Rates for Fuel Costs for South Carolina Electric & Gas Company	)	**CCL AND SACE'S PROPOSED ORDER**

I. INTRODUCTION

This matter comes before the Public Service Commission of South Carolina ("Commission") on the annual review of the fuel purchasing practices and policies of Duke Energy Progress, LLC ("DEP" or "Company") for a determination as to whether any adjustment in the fuel cost recovery factors is necessary and reasonable. The period under review in this Docket is January 1, 2017, through December 31, 2017 ("Review Period"). The procedure followed by the Commission in this proceeding is set forth in S.C. Code Ann. § 58-27-865 (2015). Additionally, and pursuant to S.C. Code Ann. § 58-39-140 (2015), the Commission must determine in this proceeding whether an increase or decrease should be granted in the fuel cost component designed to recover the incremental and avoided costs incurred by the Company to implement the Distributed Energy Resource ("DER") program previously approved by the Commission. The Company further seeks approval for its proposed 2018 update to calculations under the

Net Energy Metering ("NEM") Methodology approved in Commission Order No. 2015-194.[1]

II. PROCEDURAL BACKGROUND

A. Notice and Intervention

By letter dated December 14, 2017, the Clerk's Office of the Commission instructed the Company to publish a Notice of Hearing and Prefile Testimony Deadlines ("Notice") in newspapers of general circulation by March 2, 2018. The letter also instructed the Company to furnish the notice to its affected customers by U.S. mail, or by electronic mail to customers who have agreed to receive notice by electronic mail, by March 2, 2018. The Notice indicated the nature of the proceeding and advised all parties desiring participation in the scheduled proceeding of the manner and time in which to file appropriate pleadings. On March 5 and 12, 2018, the Company filed affidavits demonstrating that the Notice was duly published and furnished to affected customers in accordance with the instructions set forth by the Clerk.

Petitions to intervene were received and granted for Nucor Steel – South Carolina, South Carolina Solar Business Alliance, LLC ("SBA"), South Carolina Coastal Conservation League ("CCL"), Southern Alliance for Clean Energy ("SACE") (collectively, CCL and SACE are "Conservation Groups"), and Southern Current, LLC ("Southern Current"). The South Carolina Office of Regulatory Staff ("ORS") is automatically a party pursuant to S.C. Code Ann. § 58-4-10(B) (2015).

[1] This proposed order is limited to the issues raised by intervenors South Carolina Coastal Conservation League and Southern Alliance for Clean Energy, namely the 2018 update to NEM Methodology calculations for avoided transmission and distribution costs and line losses.

B. Hearing

The Commission convened a hearing on this matter on June 7, 2018, with the Honorable Swain E. Whitfield, Chairman, presiding. Through their personal appearances, DEP presented the direct testimonies and exhibits of Bryan Walsh, Kelvin Henderson, Kevin Houston, Eric Grant, Kendra Ward, and George Brown. ORS presented the direct testimonies and exhibits of Anthony Briseno, Sarah Johnson, and Willie Morgan.[2] Conservation Groups presented the direct testimony and exhibits of Devi Glick through her personal appearance. Southern Current, SBA, and Nucor Steel did not present witnesses at the hearing.

In response to the direct testimony of ORS Witness Johnson, DEP presented the rebuttal testimony and exhibit of George Brown. In response to the direct testimony of Conservation Groups' Witness Glick, DEP presented the rebuttal testimony of Glen Snider. Conservation Groups filed surrebuttal testimony of Witness Glick.

III. STATUTORY STANDARDS

S.C. Code Ann. § 58-3-140(A) vests the Commission with the "power and jurisdiction to supervise and regulate the rates and service of every public utility in this State . . ." Every rate "made, demanded or received by any electrical utility … shall be just and reasonable . . ." S.C. Code Ann. § 58-27-810 (Supp. 2015).

A. Fuel Cost Recovery under S.C. Code Ann. § 58-27-865

The procedure followed by the Commission in this proceeding is set forth in S.C. Code Ann. § 58-27-865. That provision states in pertinent part that, "[u]pon conducting public hearings in accordance with law, the [C]ommission shall direct each company to

[2] Prior to the hearing and without objection from the remaining parties, the Commission granted DEP and ORS permission to utilize panels for the presentation of witnesses.

place in effect in its base rate an amount designated to recover, during the succeeding twelve months, the fuel costs determined by the [C]ommission to be appropriate for that period, adjusted for the over-recovery or under-recovery from the preceding twelve-month period." S.C. Code Ann. § 58-27-865(B).

B. Recovery of Incremental and Avoided Costs of DER Programs under S.C. Code Ann. § 58-27-865

In addition to fuel costs, the Commission in this proceeding reviews and allows for recovery of "incremental and avoided costs of distributed energy resource programs and net metering as authorized and approved under Chapters 39 and 40, Title 58." S.C. Code Ann. § 58-27-865(A)(1). These costs shall be "allocated and recovered from customers under a separate distributed energy component of the overall fuel factor that shall be allocated and recovered based on the same method that is used by the utility to allocate and recover variable environmental costs." *Id*. Incremental DER program costs are "all reasonable and prudent costs incurred by an electrical utility to implement a distributed energy resource program pursuant to Section 58-39-130 of Chapter 39, the S.C. Distributed Energy Resource Act." S.C. Code Ann. § 58-39-140(A). Recoverable incremental costs are capped "[f]or the protection of consumers and to ensure that the cost of DER programs do not exceed a reasonable threshold." S.C. Code Ann. § 58-39-150.

C. Annual Updates to the Net Energy Metering Methodology Application

The DER incremental program costs include reasonable and prudent costs related to net energy metering ("NEM") and the Methodology for valuing distributed generation NEM resources approved in Commission Order 2015-194. Pursuant to the NEM Settlement Agreement approved previously by this Commission in Order No. 2015-194,

Docket No. 2014-246-E, the Company must compute and update annually the "costs and benefits of net metering and the required amount of the DER NEM Incentive" coincident in time with the utility's filing under the fuel clause. Order 2015-194 at p. 22, para. (g).

The NEM Methodology approved in Order No. 2015-194 included the following eleven components:

+/- Avoided Energy
+/- Energy Losses/Line Losses
+/- Avoided Capacity
+/- Ancillary Services
+/- T&D Capacity
+/- Avoided Criteria Pollutants
+/- Avoided CO_2 Emissions Cost
+/- Fuel Hedge
+/- Utility Integration & Interconnection Costs
+/- Utility Administration Costs
+/- Environmental Costs
= Total Value of NEM Distributed Energy Resource

Each component in the methodology is accompanied by a description and guidelines for calculating the component. Some components may be used as placeholders "where there is currently a lack of capability to accurately quantify a particular category and/or a lack of cost or benefit to the Utility system." Order 2015-194 at p. 20, para. (e), Ex. 1 at p. 4, para. 8. Placeholder categories are to be "updated and included in the calculation of costs and benefits of net metering if and when capabilities to reasonably quantify those values and quantifiable costs or benefits to the Utility system in such categories become available." *Id.*

IV. REVIEW OF EVIDENCE AND EVIDENTIARY CONCLUSIONS

The parties presented evidence on the following contested topics: the 2018 distributed energy resource valuation update for (1) avoided transmission and distribution costs and (2) line losses. The Company and Conservation Groups also presented

evidence on the avoided environmental cost component of the valuation update as it relates to coal ash handling and disposal. However, due to the need for additional discovery and discussion on avoided environmental costs, the Company and Conservation groups have signed a Memorandum of Understanding to not propose changes in this proceeding to the way the Company has been treating that component. *See* Hearing Exhibit 10. The Conservation Groups and Company may propose changes to the treatment of that component in future proceedings.

A. 2018 UPDATE TO NEM DER METHODOLOGY CALCULATIONS

a. DEP Direct Testimony

DEP Witnesses Kendra Ward and George Brown testified to the Company's 2018 update to the Methodology inputs for valuing the costs and benefits of NEM DERs, which are primarily rooftop solar resources.

Witness Ward testified that the Company did not make any changes to the methodology used to derive the value of NEM DERs or the resulting "NEM incentive," but that the Company updated the inputs to reflect more current information. Corrected Ward Direct Testimony (filed June 14, 2018), at p. 13. The Company updated the hourly load associated with each rate class, the hourly solar profiles, and billing rates for calendar year 2017. *Id.*

Witness Brown testified that the Company's 2018 DER value is $0.05036 per kilowatt hour (kWh) for Schedules RES, R-TOU-D, and SGS and $0.05026 for all other schedules. Corrected Brown Direct Testimony (filed June 14, 2018), at p. 7. The Company filled in non-zero values for four of the eleven Methodology components. These included energy, capacity, line losses, and criteria pollutants that are avoided by

NEM DERs. *Id.* at p. 8. The following remaining components were populated with zero values: ancillary services, transmission and distribution capacity, CO_2 emissions costs, fuel hedge, utility integration and interconnection costs, administrative costs, and environmental costs. *Id.* Witness Brown testifies that the 2018 update to the value of NEM DER is consistent with the methodology approved in Commission Order No. 2015-194. *Id.* at p. 7. As described by Witness Brown, the application of the methodology approved in Docket No. 2014-246-E is used to approximate the difference or delta between the value of a NEM DER and the full retail rate of electricity. *Id.* at p. 5. This difference is recovered as a DER Program ("DERP") incremental cost for the "DER NEM Incentive." As the value of NEM DERs increases, the difference between it and the retail rate decreases, reducing costs recovered from ratepayers as an incremental DERP cost. The higher the NEM DER value, the less money must be collected from ratepayers. The NEM DER value is reflected in updated Rider RNM. *Id.* at p. 9.

b. CCL and SACE Direct Testimony

Witness Devi Glick testified for the Conservation Groups and recommended that the Company further update the following components of the NEM DER calculations: (1) avoided transmission and distribution capacity value, (2) line losses, and (3) avoided environmental costs. She points to language in the 2014 NEM DER settlement agreement approved by the Commission that requires "[p]laceholder categories [to] be updated and included in the calculation of costs and benefits of net metering if and when capabilities to reasonably quantify those values and quantifiable costs or benefits to the Utility system in such categories become available." Glick Direct Testimony, at p. 5.

Avoided Transmission and Distribution Capacity Value

Witness Glick testified that it is possible to quantify avoided transmission and distribution capacity costs and that those costs are not zero. *Id.* at pp. 5-6. She testified that there are multiple ways of calculating an avoided transmission and distribution value, and she provided a calculated value for avoided transmission capacity of $0.005778 per kilowatt hour (kWh). *Id.* at pp. 6-10. This avoided transmission capacity value would replace the Company's assignment of zero for that methodology component.

Witness Glick testified that $0.005778 per kWh represents value that NEM DERs provide to the Company and ratepayers by offsetting the need for additional transmission system capacity investments. *Id.* Witness Glick used the Current Values approach to calculate the avoided transmission value specific to DEP. She relied on the Company's data submitted to the Federal Energy Regulatory Commission and included in its most recent Integrated Resource Plan to make this calculation. The current values approach "calculates the current value of the transmission system per kW of transmission peak use. This value represents the cost of serving an additional kW, or conversely the savings from avoiding additional transmission need." *Id.* at p. 10; *see also* Glick Exhibit DG-4 (showing the calculations and values used). Her calculations resulted in two values, one for a summer peaking DEP system, and another for a dual peaking DEP system. *Id.* at p. 10. Because DEP currently purports to be dual peaking (in summer and in winter), Witness Glick recommended using the dual peaking value of $0.005778. *Id.*

In addition to the Current Values approach that Witness Glick used for her calculations, she provided descriptions of alternative options that the Company could use to calculate avoided transmission and distribution capacity values in future proceedings. *Id.* at pp. 6-9. In Maine's Value of Solar study, historical transmission tariffs were used

as a proxy for the cost of future transmission that is avoidable or deferrable by DERs. *Id.* at p. 7. MidAmerican Energy Company used a simplified Current Values approach to calculate the "average cost to serve existing load by dividing both the transmission and distribution system net cost by the systems peak capability." *Id.* PacifiCorp used another approach in its Integrated Resource Plans for Oregon, Washington, Idaho, California, and Utah. *Id.* PacifiCorp used a cost of service study to evaluate substation capacity investments for the next five years and divided those costs by total increased capacity, giving them an estimate for demand-related substation costs. *Id.* PacifiCorp similarly calculated avoided transmission costs by "dividing total growth-related transmission investment over the next five years by forecasted change in peak, and annualizing the result." *Id.* These alternative options have been used in other states in proceedings to calculate the value that distributed energy resources like solar and energy efficiency provide in offsetting the need for additional distribution and transmission capacity expenditures. Witness Glick further testified that she reviewed 15 value of solar studies for the Rocky Mountain Institute in 2013. Twelve of the 15 studies included an avoided T&D value, and all 12 of those included a non-zero avoided T&D value. She included a copy of this report as an exhibit to her testimony. Glick Direct Testimony, Exhibit DG-2.

After describing how avoided T&D has been calculated elsewhere, Witness Glick testified to several available approaches for calculating this value for DEP's annual NEM DER valuation update: (1) a system planning study, (2) review of historical transmission and distribution spending, (3) a statistical correlation of transmission and distribution capital investment and forecasted load growth, and (4) the current values approach. She also noted that avoided distribution and avoided transmission capacity costs are two

distinct components of the avoided T&D category. *Id.* at pp. 8-9. These approaches, including the current values approach, to calculating avoided transmission and distribution costs were further described in Exhibit DG-3, a report by the Mendota Group, LLC for the Public Service Company of Colorado, *Benchmarking Transmission and Distribution Costs Avoided by Energy Efficiency Investments.* Glick Direct Testimony, Exhibit DG-3. Witness Glick employed a current values approach to calculate avoided transmission data costs because she did not have access to the more detailed information required to utilize the other approaches. *Id.* at 10.

Witness Glick testified that avoided T&D is a category within the NEM Methodology that is "quantifiable" at this time, consistent with the 2014 NEM DER settlement agreement, and should thus be included in the Company's NEM Methodology update. She recommended that the Commission require DEP to immediately adopt an avoided T&D Capacity value of $0.005778 per kWh.

Line Losses

Witness Glick made several recommendations related to updating the Company's line loss study. She testified that the Company provided in discovery a line loss study that was conducted in 2010. *Id* at p. 13. This study was done before Duke Energy Progress and Duke Energy Carolinas merged and began jointly dispatching resources to meet combined load. *Id.* Witness Glick recommended that DEP conduct a new or updated line loss study for the joint DEP-DEC system to quantify marginal line losses associated with avoided energy, generating capacity and transmission capacity costs. *Id.* at pp. 13-14. She recommended that the study use a solar PV profile since most NEM DERs are expected to be solar in the near future, and that the Company use marginal

losses rather than average losses to capture the actual impact of adding another kilowatt (kW) of solar to the distribution system. *Id.*

Avoided Environmental Costs

Witness Glick also testified that she disagreed with the Company's conclusion that the avoided environmental cost component of the NEM DER methodology is zero. Glick Direct Testimony at p. 11. Witness Glick provided the example of coal ash handling and disposal as an avoidable environmental cost. Witness Glick pointed to three broad categories of costs associated with coal ash waste that could be avoided: (1) variable operational costs associated with coal ash disposal, (2) capital costs associated with building new impoundments, and (3) costs associated with the risk that an impoundment will leak and require clean up. Witness Glick did not have data needed from the Company in order to calculate a value for these categories of costs.[3]

c. ORS Testimony

ORS Witness Sara W. Johnson testified regarding the Company's DERP costs related to the Company's NEM DER Methodology update. Witness Johnson testified that "[t]he Company used the methodology approved in Commission Order No. 2015-194 to calculate the NEM incentive." Johnson Direct Testimony, at p. 5. Witness Johnson testified to the need to correct an error discovered in the Company's calculation of the NEM DER value, specifically related to the solar profile calculation. *Id.*

[3] The Conservation Groups and DEP entered into a memorandum of understanding to engage in further discovery on the issue of coal ash handling and disposal costs that may be avoided by DERs, and plan to address that topic in future proceedings.

d. DEP's Rebuttal Testimony

DEP Witness Snider testified in response to Witness Glick's testimony. His rebuttal testimony addressed avoided transmission and distribution costs, avoided environmental costs, and line losses.

Witness Snider disagreed with Witness Glick that NEM DERs avoid transmission and distribution capacity costs. Snider Rebuttal Testimony, at p. 4. He testified that the distribution and transmission system infrastructure must be designed to meet load at all times of the day and year, and the Company cannot rely on NEM DERs like solar to offset peak demand needs because of their intermittent nature. *Id.* at pp. 4-5. He further testified that uncertainty around location and dispatchability of NEM DERs make it impossible for NEM DERs to avoid investments related to transmission or distribution. *Id.* at p. 5. He provided an example of a large solar facility's production on May 22, 2018, and asserted that one generator's production can vary significantly over the course of the day. *Id.* He said there is no guarantee that solar systems will produce electricity during peak times, particularly winter peaks. *Id.* Regarding the distribution benefits of NEM DERs, Witness Snider testified that NEM DERs may actually "drive additional investments in the distribution system." *Id.* at p. 6.

Witness Snider also testified to the Company's treatment of coal ash costs as it relates to avoided environmental costs in the annual NEM DER update. *Id.* at p. 7. He testified that the Company's variable operational costs associated with coal ash disposal are included within the avoided energy component of the NEM DER valuation. *Id.* Witness Snider testified that NEM DER will not result in avoiding any capital costs associated with coal ash impoundments because the Company has committed to convert

its coal ash handling from wet ash handling to dry handling by the end of the year. *Id.* at pp. 7-8.

Witness Snider testified that the Company's line loss study is several years old at this point, but that it is still representative of the Company's grid and that the Company updates inputs to the study each year to reflect current system conditions. *Id.* at pp. 8-9. He further testified that the Company plans to update its line loss study to incorporate new transmission and distribution modeling techniques to evaluate line losses in more hours in the year. *Id.* at p. 9. The updated study will consider the influence of a solar profile on line losses. *Id.* The Company anticipates the study being complete in time for next year's fuel cost proceeding. *Id.*

e. CCL and SACE's Surrebuttal Testimony

Conservation Groups' Witness Glick responded in surrebuttal to Witness Snider's rebuttal testimony. She testified that avoided transmission and distribution capacity are two distinct value categories. Glick Surrebuttal Testimony, at p. 2. Witness Snider's rebuttal to avoided T&D capacity focused on avoided distribution capacity rather than avoided transmission capacity values, which was the focus of Witness Glick's direct testimony. *Id.* She also disagreed with Witness Snider's argument that the intermittency of solar means that it does not avoid any transmission or distribution costs. *Id.* at p. 3. In particular, she noted that when solar PV DERs are aggregated they result in a smoother generation profile and says that Witness Snider failed to consider this aggregated impact on the transmission system. *Id.* Responding to Witness Snider's assertion that solar DERs are not guaranteed to contribute to peak load, Witness Glick noted that DEP's inclusion of solar capacity credits in its Integrated Resource Plan (44% of nameplate in

summer and 5% in winter) demonstrates that DEP does expect solar to contribute some generating capacity during times of peak demand. *Id.* at pp. 3-4.

Witness Glick further testified that Company Witness Snider failed to address any of the methods that she described for calculating avoided transmission and distribution capacity. *Id.* at p. 4. He failed to explain why the Company was unable or unwilling to apply one of these calculation methods. *Id.* Moreover, she stated that the concerns presented by Witness Snider regarding intermittency and nondispatchability all would have been present in 2014 when the Company agreed to a NEM DER methodology that included an avoided T&D capacity component. *Id.* Witness Glick reiterated her recommendation that her calculation of $0.005778/kWh for avoided transmission value be used in the Company's NEM DER update. *Id.*

Regarding line losses, Witness Glick discussed DEP's plans to update its line loss study and reiterated her recommendations that the Company use marginal losses rather than average losses consistent with the 2014 NEM DER settlement agreement language. *Id.* at p. 7. She also restated her recommendation that the Company use a solar profile in its updated line loss study to properly credit solar PV's contribution for its actual production. *Id.*

f. Examination at the Hearing

At the hearing, Company Witness Snider answered questions on cross examination and examination by the Commissioners related to avoided T&D costs and line losses. He acknowledged the 2014 NEM settlement agreement terms that provided for placeholder categories to be filled in by the Company once those components were quantifiable. Hearing Transcript at p. 158, ln 14-22; Hearing Exhibit 8. He agreed that

avoided T&D costs and avoided line losses were two of the methodology components in the settlement agreement. Hearing Transcript at p. 159. He further acknowledged the language in the settlement agreement relating to line losses and advising that marginal losses are more appropriate to use when available. *Id.*

Witness Snider testified that the Company plans to look at marginal line losses in its updated line loss study and that it was the Company's hope to "get to the marginal line loss." *Id.* at p. 160. He testified that the updated line loss study was expected to be ready by the next annual fuel cost proceeding and would inform future NEM DER valuation updates. *Id.* In response to Commissioner questions, Witness Snider testified that it was the Company's hope to have the updated study completed by the end of the calendar year to give time for the parties to review the study and make recommendations in the next annual fuel cost proceeding. *Id.* at p. 180.

When asked about avoided transmission and distribution costs and that component of the NEM DER methodology, Witness Snider testified that he was not aware of any studies that the Company has done since 2014 on the ability of NEM DERs to avoid transmission costs. *Id.* at p. 161. He also acknowledged that avoided distribution and transmission costs are potentially two separate values. *Id.* at pp. 161-162, 171. In responding to questions from Commissioners, Witness Snider discussed avoided distribution costs specifically and the fact that those can really depend on the locations and quantities of NEM DERs. *Id.* at p. 165. Witness Snider further stated that he believed some of the approaches that Witness Glick described for calculating avoided T&D were drawn from the energy efficiency context and would not apply as well for solar PV, and that his concerns related to NEM DERs on the distribution grid could also

apply to the transmission grid. *Id.* at pp. 172, 183. He admitted, however, that he "did not specifically go into details on the Current Value approach . . . ." *Id.* at p. 173.

Conservation Groups' Witness Glick also responded to Commissioner questions and to questions on re-direct. She pointed out that several of the recommended approaches to calculating avoided T&D capacity costs were drawn from value of solar studies, and not just energy efficiency studies. *Id.* at pp. 232-233. She explained that while the Current Values approach was drawn from the energy efficiency context, it was appropriate to use in this proceeding for calculating avoided transmission costs, but that she would not use it to calculate avoided distribution costs. *Id.* She testified that it was appropriate for the transmission value because NEM DER generated energy is unlikely to make it back on to the transmission system and so it can have the same impacts on the transmission system as energy efficiency measures. *Id.* at p. 233. Finally, she testified that if her recommended avoided transmission capacity value was adopted, it would increase the value of the NEM DER (or value of solar) total, and would therefore reduce the delta between the value of NEM DERs and the retail rate of electricity. *Id.* at p. 242. This would in turn reduce the NEM DER program costs that the Company collected from ratepayers as DER program incremental costs. *Id.*

V. FINDINGS OF FACT

1. There are several available approaches for calculating avoided distribution and capacity costs that have been utilized in other jurisdictions to help quantify the value of NEM DERs. These approaches include: (1) a system planning study, (2) a review of historical transmission and distribution

spending, (3) a statistical correlation of transmission and distribution capital investment and forecasted load growth, and (4) the current values approach.

2. Avoided distribution and avoided transmission capacity costs are two distinct components of the avoided T&D category of the NEM DER methodology.
3. Avoided transmission capacity is capable of quantification at this time, for the purposes of DEP's NEM DER valuation update.
4. Using the current values approach, NEM DERs on DEP's system have an average avoided transmission capacity value of $0.005778 per kWh, so long as the system is dual peaking.
5. The Company plans to complete an updated line loss study in the near future.
6. The Company anticipates completing this study by the end of the calendar year.
7. For Avoided Line Losses calculations, it is possible and appropriate for the Company to use marginal line losses weighted to a solar photovoltaic profile when updating its line loss study.

VI. CONCLUSIONS OF LAW

The NEM Settlement Agreement approved by this Commission in Order No. 2015-194, Docket No. 2014-246-E, states that the Company shall compute and update annually the "costs and benefits of net metering and the required amount of the DER NEM Incentive" coincident in time with the Utility's filing under the fuel clause. Order 2015-194, at p. 22, para. (g). Under that approved settlement agreement, placeholder categories are to be "updated and included in the calculation of costs and benefits of net

metering if and when capabilities to reasonably quantify those values and quantifiable costs or benefits to the Utility system in such categories become available." *Id.*

The Commission finds that an avoided transmission capacity value is reasonably quantifiable at this time and should be included in DEP's 2018 NEM DER valuation update. Conservation Groups' Witness Glick testified to several methods of calculation and resources, demonstrating that avoided transmission (and distribution) capacity values are capable of quantification at this time. Witness Glick calculated an avoided transmission capacity value of $0.005778 per kWh to be included in the Company's 2018 update, based on the current values approach.

The 2014 Settlement Agreement approved in Order No. 2015-194 also states that marginal line losses are more appropriate to use in the NEM DER valuation updates than average line losses. Order 2015-194, at p. 8 ("Average loss factors are more readily available, but marginal loss data is more appropriate and should be used when available"). Company Witness Snider testified that DEP intends to update its line loss study in the coming months, and on examination at the hearing indicated that the Company plans to look at marginal line losses and that the Company hopes to complete it by the end of the calendar year. Witness Snider also testified in his rebuttal testimony and at the hearing that the Company plans to use a solar profile in its line loss study update. As agreed to at the hearing, the Company should incorporate marginal line losses into its NEM DER valuation updates. The Company should complete its planned line loss study update by the end of this calendar year to allow sufficient time for input prior to the next DEP fuel cost proceeding in 2019.

IT IS THEREFORE ORDERED THAT:

1. The Company shall adopt an avoided transmission cost value of $0.005778 per kWh in its 2018 NEM DER valuation update. Any fuel clause or DERP cost recovery adjustments needed to account for this change will be made in the 2019 fuel clause proceeding.
2. The Company shall complete its updated line loss study by the end of this calendar year, with the following parameters:
    a. The line loss study will evaluate marginal line losses;
    b. quantify avoided energy, generating capacity and transmission capacity costs associated with line losses; and
    c. use a solar PV profile.
3. The Company shall provide an opportunity for interested parties to comment on the line loss study prior to finalizing it and using it in the 2019 fuel cost proceeding.
4. No changes shall be made to the Company's treatment of the avoided environmental cost component in this proceeding.
5. This Order shall remain in full force and effect until further Order of the Commission.

BY ORDER OF THE COMMISSION:

_____
Swain E. Whitfield, Chairman

ATTEST:

_____
Comer H. Randall, Vice Chairman